

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF SECRETARY

In the Matter of

Rulemaking to Amend Part 1 and  
Part 21 of the Commission's Rules  
to Redesignate the 27.5-29.5 GHz  
Frequency Band and to Establish  
Rules and Policies for Local  
Multipoint Distribution Service

CC Docket No. 92-297

RM-7872; RM-7722

COMMENTS OF MOTOROLA SATELLITE COMMUNICATIONS, INC.  
AND DESIGNATION OF QUALIFIED INDIVIDUAL TO  
REPRESENT ITS INTERESTS IN NEGOTIATED RULEMAKING

The Commission has issued a Public Notice pursuant to the Federal Advisory Committee Act, 5 U.S.C. App. 2, and the Negotiated Rulemaking Act of 1990, Pub. L. 101-648, Nov. 29, 1990, inviting comments on its proposal to establish an advisory committee and to institute a negotiated rulemaking in this proceeding.<sup>1/</sup> In response to the Commission's invitation, Motorola Satellite Communications, Inc. ("Motorola") hereby submits its comments (1) supporting the establishment of a Federal Advisory Committee; (2) requesting the consideration of certain specific frequency bands in addition to those identified in the public notice; (3) proposing a detailed work plan; (4) identifying Motorola's vital interest in developing technical rules for the above-referenced bands; and (5) addressing other related matters.

<sup>1/</sup> See Public Notice in CC Docket No. 92-297, released Feb. 11, 1994. The Notice was published in the Federal Register on February 17, 1994. See 59 Fed. Reg. 7961.

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Motorola has been correctly identified by the Commission as an entity whose interests are affected by this proceeding. See Public Notice at ¶ 8, 5 U.S.C. § 564(a). Motorola generally supports regulatory negotiation as an appropriate mechanism for resolving the technical issues raised in this rulemaking proceeding. In order to secure all of the benefits of such an approach, however, the following conditions should be satisfied:

- The issues to be negotiated by the parties must be carefully formulated so as not to prejudice the outcome of the negotiations;
- The Commission should task the Federal Advisory Committee with exploring the possible accommodation of certain affected interests in contiguous bands;
- The Commission should establish a Work Program that will address the issues in a non-partisan way, expedite the negotiation process and facilitate consensus;
- The Commission should limit membership on the Federal Advisory Committee to avoid multiple representation of financially affiliated interests and to ensure balanced representation of the interests affected; and
- The Commission should carefully select a neutral facilitator on the basis of proven experience in mediating and assisting in the achievement of consensus, rather than on the basis of technical expertise.

To the end of satisfying these conditions, Motorola proposes a Work Program, attached hereto as Appendix 1, and makes certain suggestions with respect to the selection of a facilitator. Also, Motorola hereby designates Michael D. Kennedy, Vice President and Director, Regulatory Relations of Motorola Inc., as a qualified

individual to represent Motorola's interests in the negotiated rulemaking.<sup>2/</sup> Both Motorola and its designated representative hereby commit in writing that they will actively participate in good faith in the development of the rules under consideration.

**I. MOTOROLA HAS A VITAL INTEREST IN THE LMDS PROCEEDING**

Motorola subscribes to the Commission's conclusion that its interests are directly affected by this proceeding, which involves the proposed reallocation of the 28 GHz band to terrestrial point-to-multipoint services, such as the Local Multipoint Distribution Service ("LMDS"), on a co-primary basis with the Fixed-Satellite Service ("FSS"). Pursuant to the existing FSS allocation, Motorola has applied for authority to operate its feeder links (Earth to space) on the proposed IRIDIUM™ system in the 29.1-29.3 GHz band. As the Commission is well aware, the IRIDIUM™ system is a multi-billion dollar project that will provide global MSS to handheld subscriber units, for which Motorola filed an application on December 3, 1990. See Application of Motorola Satellite Communications, Inc. for IRIDIUM™ -- A Low Earth Orbit Mobile Satellite System, File Nos. 9-DSS-P-91(87) & CSS-91-010 (Dec. 3, 1990). As the Commission correctly recognizes in its Second Notice of Proposed Rulemaking in this proceeding, feeder links between the gateway earth stations and satellites are absolutely critical for any MSS system: "[w]ithout the feeder links, an MSS system would be useless." See CC Docket No. 92-297, Second Notice of Proposed Rulemaking (FCC 94-12), released Feb. 11, 1994 ("Second LMDS NPRM") at ¶ 18.

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<sup>2/</sup> All the undersigned may, from time to time and as need arises, also represent Motorola and assist Mr. Kennedy in performing his tasks, and are hereby designated for that purpose and make the same commitment to participate in good faith.

On January 19, 1994 (simultaneously with the adoption of the Second Notice of Proposed Rulemaking in this proceeding), the Commission also adopted a Notice of Proposed Rulemaking in the MSS proceeding, setting forth proposed rules to govern the licensing of qualified Low-Earth-Orbit MSS systems, including Motorola's IRIDIUM™ system. See CC Docket No. 92-166, Amendment of the Commission's Rules to Establish Rules and Policies Pertaining to a Mobile Satellite Service in the 1610-1626.5/2483.5-2500 MHz Frequency Bands, Notice of Proposed Rulemaking (FCC 94-11), released Feb. 18, 1994. In the MSS NPRM, the Commission stated that it expects to identify sufficient feeder uplink spectrum in the 27.5-30.0 GHz band to satisfy the needs of all LEO MSS applicants including Motorola. As Motorola has demonstrated in its comments in this proceeding, and as the Negotiated Rulemaking Committee has already concluded in the MSS proceeding, sharing between LMDS and feeder uplinks for LEO MSS systems on a co-frequency, co-coverage basis would cause unacceptable interference between the two services. See Report of the MSS Above 1 GHz Negotiated Rulemaking Committee ("NRC Report") (Apr. 6, 1993), ¶ 4.4.

It is clear, therefore, that Motorola would be directly affected by the proposed reallocation of the 28 GHz band to LMDS.<sup>3/</sup>

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<sup>3/</sup> It is also clear that Motorola's interests are distinct from those of other Big-LEO MSS applicants: Motorola is so far the only applicant that has requested spectrum in the 27.5-29.5 GHz band for its feeder uplinks. Moreover, as Motorola has stressed in its comments in this proceeding, the 200 MHz spectrum in the band would be sufficient to cover the needs of the IRIDIUM™ system alone, not of any other MSS applicant. Of course, the interests of Motorola and other MSS applicants may converge by means of the regulatory negotiation proposed by the Commission.

**II. THE COMMISSION SHOULD FORMULATE THE ISSUES TO AVERT ANY RISK OF BIASING THE UPCOMING NEGOTIATIONS AND SHOULD ADOPT A WORK PROGRAM REFLECTING ALL BAND SHARING ALTERNATIVES**

The Commission has identified the following "primary issue" to be resolved in the proposed rules to be developed by the Federal Advisory Committee:

What technical rules should be adopted for the Local Multipoint Distribution Service and/or the fixed satellite service so as to maximize the sharing of the spectrum among these services?

Public Notice at ¶ 6.

Motorola understands "sharing," as used in the Commission's formulation of the issue, to embrace all modes of sharing of the band -- not only possible co-frequency, co-coverage sharing, but also sharing the band by means of segmentation. This understanding is consistent with the Commission's statement that "[t]echnical rules are necessary to establish under what circumstances, if any, sharing between satellite and terrestrial uses is feasible." *Id.* at ¶¶ 5, 32 (emphasis added). Moreover, as the Commission explains in the Second LMDS NPRM, the goal of the Committee will be to "develop technical regulations reflecting a consensus determination whether proposed terrestrial and satellite uses can share, on a co-frequency and co-coverage area basis, the 28 GHz band." Second LMDS NPRM at ¶ 2 (emphasis added). The Commission has also pointed out that "at present it appears that sharing may not be possible under all circumstances proposed by the various parties interested in the 28 GHz band." *Id.* at ¶ 34.

These statements in the Second LMDS NPRM clearly show the Commission did not intend to pre-determine the best means of sharing the available

spectrum. Accordingly, to avoid any potential for biasing the negotiated rulemaking process, the alternatives of co-frequency co-coverage sharing and band segmented sharing should be given equal dignity; and the Committee should be tasked with endeavoring to develop a consensus on which of these or other possible alternatives is feasible.<sup>4/</sup>

To reflect the equal footing of all alternatives identified by the Commission, Motorola proposes that the Commission endorse the draft Work Program attached hereto as Appendix A.<sup>5/</sup> This Work Program incorporates all of the alternatives identified by the Commission, and accords them equal dignity within the primary issue for negotiation -- which of the alternative methods should be used to maximize sharing of the spectrum in the 28 GHz band.

**III. THE COMMISSION SHOULD TASK THE COMMITTEE WITH EXPLORING ALTERNATIVE SPECTRUM IN THE 27.0-31.0 GHz BAND TO ACCOMMODATE USERS IN THE ENTIRE 27.0-31.0 GHz BAND**

In view of the Commission's tentative conclusion that "sharing may not be possible under all circumstances proposed by the various parties in the 28 GHz band," enlarging the Committee's mandate beyond the 27.5-29.5 GHz band may well be essential to the achievement of a consensus. Specifically, the contiguous spectrum in the 27.0-27.5, 29.5-30.0, and 30.0-31.0 GHz bands offers possible solutions for

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<sup>4/</sup> Motorola would be loath to see repeated the mistake made in the deliberations of the Above 1 GHz Negotiated Rulemaking Committee, where the alternative of sharing by means of band segmentation was not considered until a late stage in the negotiation. Such delayed consideration hampered the Committee's achievement of a consensus on sharing.

<sup>5/</sup> We also agree with the Commission that the Committee should only consider the enumerated economic issues if a consensus is reached on a sharing plan. See Public Notice at ¶ 6.

accommodating all interested parties.<sup>6/</sup> These contiguous bands have similar technical characteristics as the 27.5-29.5 GHz band and they are populated with few existing users.<sup>7/</sup> Indeed, the Enhanced Microwave Environmental Link File ("EMELF") contains no record of any system in the 27.0-27.5 or 30.00-31.00 GHz bands.

Moreover, the Commission can easily adjust the Committee's composition to reflect and take account of any and all interests that would be affected by exploring these contiguous bands as alternative spectrum for some of the conflicting services that are being considered in this proceeding. Indeed, consideration of the 27.0-27.5, 29.5-30.0 and 30.0-31.0 GHz bands would affect mostly, if not exclusively, the interests of the Government and any authorized Government users.<sup>8/</sup> These interests can be easily represented by including in the Committee's composition a representative from NTIA and possibly a limited number of other authorized users. The Committee's conclusions

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<sup>6/</sup> Indeed, the Second LMDS NPRM already contemplates consideration of alternative bands as within the Committee's mandate. The NPRM proposed that no further consideration be given to certain proposals for alternative bands "unless recommended otherwise by a negotiated rulemaking committee." Second LMDS NPRM at 9 n.15.

<sup>7/</sup> The 27.0-27.5 GHz band is currently allocated to the Fixed and Mobile terrestrial services for government use, and to the Earth-Exploration Satellite (space-to-space) service on a secondary basis both for government and non-government uses. The 29.5-30.0 GHz band is allocated to the FSS and MSS on a primary basis and Earth-Exploration Satellite (space-to-space) service on a secondary basis for both government and non-government uses. The 30.0 - 31.0 GHz band is allocated to FSS and MSS for government uses and to Standard Frequency and Time Signal-Satellite (space-to-Earth) service on a secondary basis for government and non-government uses. While use of these contiguous bands by LMDS would require a reallocation to point-to-multipoint terrestrial fixed service, such reallocation should be relatively uncontroversial in view of the sparse population of the band with current users.

<sup>8/</sup> Possible exceptions include Hughes' proposed Spaceway system which is intended to operate in the 29.0-30.0 GHz band and the satellite system licensed to Norris Satellite Communications, Inc. in the 29.5-30.0 GHz band.

and possible consensus could then be used by the Commission in its further Notice of Proposed Rulemaking, which would embrace these bands as well.

**IV. THE COMMISSION SHOULD SELECT A NEUTRAL FACILITATOR  
BASED ON PROVEN MEDIATION EXPERIENCE**

Motorola recommends that the person nominated by the Commission to serve as a neutral facilitator for the Committee should be selected primarily on the basis of skill and experience in assisting disputing parties to reach consensus, rather than familiarity with the subject matter of the negotiated rulemaking. There will be no shortage of technical experts in this proceeding, and its success or failure is unlikely to turn on the presence of yet another technical expert. Rather, what will be most useful in guiding the different interests to consensus is someone who is an experienced mediator. This is the view of the experts in negotiated rulemaking, and it is a view shared by Motorola. See Harter, Negotiating Regulations: A Cure for Malaise, 71 Geo. L.J. 1, 77-79 (1082); Administrative Conference of the United States Recommendation 86-8, 1 CFR 305.86-8, Acquiring the Services of 'Neutrals' for Alternative Means of Dispute Resolution, Negotiated Rulemaking Sourcebook 240 (U.S. Government Printing Office, 1990).

Motorola further recommends that, for assistance in obtaining a skilled facilitator, the Commission should work with the Administrative Conference of the United States, the body charged by Congress with the responsibility of assisting agencies and parties participating in negotiated rulemaking. See Negotiated Rulemaking Act of 1990, § 569. The Administrative Conference maintains a roster of skilled facilitators from both government agencies and private groups, and Motorola recommends that the Commission consider both sources in order to obtain a highly qualified person. If doing

so will result in increased expense not budgeted for this proceeding, Motorola is ready to pay its fair share of those expenses by means of a contribution to the Administrative Conference of the United States, as authorized by the Negotiated Rulemaking Act, § 569(g). (See Senate Report No. 101-97 on Negotiated Rulemaking Act of 1989, Section 589(g), passed without change as Section 569(g) of the Negotiated Rulemaking Act of 1990.)

**V. THE COMMISSION SHOULD AVOID MULTIPLE REPRESENTATION OF FINANCIALLY AFFILIATED INTERESTS ON THE FEDERAL ADVISORY COMMITTEE**

Motorola generally believes that the Commission has properly identified the interests that are significantly affected by the key issues in this proceeding, and that the suggested committee membership reflects a balanced representation of those interests. The Commission should attempt to avoid, however, multiple representation on the Committee by affiliated interests, or interests that are financially aligned by means of a joint venture, debt or equity infusion of capital, revenue or profit sharing or another similar arrangement relating to the provision of LMDS or FSS. Such multiple representations would unnecessarily increase the size of the Committee, tend to make it unwieldy and hamper its ability to reach consensus, while at the same time they would not add any additional points of view.

In this regard, Motorola has reason to believe that some parties separately identified in the Commission's tentative list may be financially aligned. Specifically, it is Motorola's understanding that the Bell Atlantic Companies and the Suite 12 Group are affiliated, and the same applies for the interests of the Suite 12 Group and the David Sarnoff Research Center. We also understand that Video/Phone Systems, Inc. and

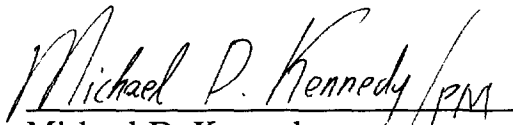
Endgate Company have substantially identical interests. The Commission should ask such affiliated entities to designate only one representative of their interests on the Committee.

**VI. CONCLUSION**

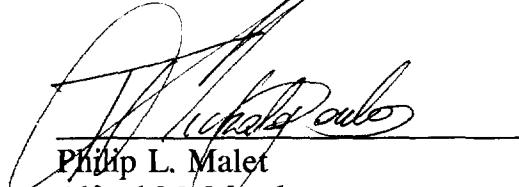
For the foregoing reasons and subject to the recommendations detailed above, Motorola supports regulatory negotiation as appropriate in this proceeding.

Respectfully submitted,

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## **APPENDIX 1**

### **WORK PROGRAM**

Develop recommendations for FCC Rules in 47 C.F.R. Parts 21 and 25 that address the technical regulations needed to govern the provision of proposed Local Multipoint Distribution Service and Fixed Satellite Service in the 27.5-29.5 GHz band.

- I. Recommend new technical and coordination rules and modification of existing rules, as necessary, for the proposed Local Multipoint Distribution Service and the Fixed Satellite Service so as to maximize the sharing of spectrum between these services.
  - A. Identify the spectrum requirements of each service.
  - B. Examine the following interference cases:
    1. Non-GSO vis-a-vis LMDS
      - a. non-GSO earth station uplinks into LMDS receivers.
      - b. LMDS hub station transmitters into non-GSO satellite uplink receivers.
    2. GSO vis-a-vis LMDS
      - a. GSO earth station uplinks into LMDS receivers.
      - b. LMDS hub station transmitters into GSO satellite uplink receivers.
    3. Non-GSO vis-a-vis GSO
      - a. Non-GSO earth station uplinks into GSO satellite uplink receivers.
      - b. GSO earth station uplinks into Non-GSO satellite uplink receivers.
      - c. Non-GSO satellite downlinks into GSO earth station downlink receivers.

- d. GSO satellite downlinks into Non-GSO earth station downlink receivers.
- 4. Non-GSO vis-a-vis Non-GSO
  - a. Earth station uplinks of one Non-GSO system into the satellite uplink receivers of another Non-GSO system.
  - b. Satellite downlinks of one Non-GSO system into the earth station downlink receivers of another Non-GSO system.
- C. Provide recommendations on the feasibility of:
  - 1. Co-frequency sharing.
  - 2. A sharing plan based on band segmentation.
- D. Examine alternative frequency bands for LMDS.
- E. If a consensus on a sharing plan is reached, provide an analysis of how the benefits of the proposed sharing plan outweigh alternative options for accommodating these services. In performing this analysis, the following factors should be considered:
  - 1. The proper definition of the product market and geographic market for the services proposed;
  - 2. The degree of competition anticipated within the relevant market (including the extent to which the proposed services are expected to compete with existing services);
  - 3. The degree to which new services and technological innovations will be stimulated by the proposed allocation;
  - 4. The amount and nature of investment in the national telecommunications infrastructure expected as a result of the use of the band for the particular service(s);
  - 5. The kind and number of jobs that would be created as a result of the licensing of particular services;
  - 6. Any other available data concerning the economic growth expected to result from the allocation for the particular service(s).

## CERTIFICATE OF SERVICE

I, Pantelis Michalopoulos, hereby certify that copies of the foregoing Comments of Motorola Satellite Communications, Inc. and Designation of Qualified Individual to Represent its Interests in Negotiated Rulemaking, were served by first-class mail, postage prepaid, this 21st day of March, 1994 on the following persons:

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